



Yokogawa Corporation of America

2 Dart Road

Newnan, GA 30265

YOKOGAWA CORPORATION of AMERICA ENVIRONMENTAL MANAGEMENT MANUAL

WRITTEN BY: *Dale Griffin*

Manager, Corporate Quality Assurance

APPROVED BY: *Shuzo Kaihori*

President & CEO

DATE: **February 17, 2005**

REVISION REFERENCE NO. **B**

A Yokogawa Commitment to Industry

vigilance[®]

TABLE of CONTENTS

- 1.0 Scope
- 2.0 Normative References
- 3.0 General
 - 3.1 Definitions
 - 3.2 Maintenance of the Environmental Management Manual
 - 3.3 Environmental Policies
 - 3.3.1 Environmental Policy
 - 3.3.2 Environmental Commitments
- 4.0 Environmental Management System Requirements
 - 4.1 General
 - 4.2 Environmental Policy
 - 4.3 Planning
 - 4.3.1 Environmental Aspects
 - 4.3.2 Legal and other Requirements
 - 4.3.3. Objectives and Targets
 - 4.3.4 Environmental Management Programs
 - 4.4 Implementation and Operations
 - 4.4.1 Structure and Responsibility
 - 4.4.2 Training, Awareness and Competence
 - 4.4.3 Communications
 - 4.4.4 Environmental Management System Documentation
 - 4.4.5 Document Control
 - 4.4.6 Operation Control
 - 4.4.7 Emergency Preparedness and Response
 - 4.5 Checking and Corrective Action
 - 4.5.1 Monitoring and Measurement
 - 4.5.2 Evaluation of Legal Compliance
 - 4.5.3 Nonconformance and Corrective/Preventive Action
 - 4.5.4 Records
 - 4.5.5 Environmental Management System Audit
 - 4.6 Management Review

1.0 Scope

The management of Yokogawa Corporation of America, hereafter referred to as "YCA," has approved issue of the "Yokogawa Corporation of America Environmental Management Manual" to provide a documented description of our Environmental Management System.

The Manual will be used as a reference by YCA for environmental management activities.

The contents of this Manual are binding on all employees within YCA and any subcontractors (apart from the organization) inside the facility.

It is intended that this Manual will provide the basic structure upon which we will implement specific environmental policies and procedures and create environmental work standards.

Further, the management of YCA has committed that the Environmental Management System be certified by an accredited third party to the applicable environmental management standard ISO 14001.

2.0 Normative References

ISO 14001:2004 Environmental Management Systems

3.0 General

3.1 Definitions

For definitions of terms used in this document please reference ISO 14001:2004 Environmental Management Systems, Sec 3.0.

3.2 Maintenance of the Environmental Management Manual

3.2.1 Contents

This manual contains the approved YCA Environmental Management System standards and procedures as directives/guidelines.

3.2.2 Authorization

The Environmental Management Representative is authorized by the President of YCA to maintain and publish the Environmental Management Manual. The Environmental Management Representative is responsible to ensure that the contents of the manual continue to reflect the expressed and/or intended management directives of YCA.

3.2.3 Revisions

Any interested party or employee of YCA may request a revision, deletion, or addition to this manual. Evaluation and approval of such requests is the responsibility of the Environmental Management Representative.

3.2.4 Distribution

This Environmental Management Manual is the responsibility of the Environmental Management Representative. It is easily available at all point of use by any YCA employee and will be made available whole or in part for interested parties.

3.2.4.1 Controlled copy

This Environmental Management Manual is maintained in an electronic format residing on Yokogawa network servers. There is no controlled paper copy or alternative distribution.

3.2.4.2 Reference copy

When deemed necessary or desirable, an uncontrolled distribution copy of this manual (or portion thereof) may be made available for information/reference purposes.

3.3 Environmental Policies

Yokogawa Corporation of America (YCA) is committed to the protection and conservation of the environment in the manufacture and assembly of test, measurement and process control devices.

3.3.1 Environmental Policy:

The management team and employees of Yokogawa Corporation of America, along with our valued partners, pledge their commitment to the prevention of pollution and protecting and conserving the natural environment. We will demonstrate this commitment by incorporating environmental consciousness in our daily activities and complying with all statutory, regulatory requirements and recognized standards. The Yokogawa Corporation of America Environmental Management System is designed to continually improve our environmental performance and encompasses activities from “design to delivery” of product to recycling of resources. We offer our expertise in environmental protection to our customers assisting them with “green” solutions in the fields of test, measurement and process control.

3.3.2 Environmental Commitments:

- a) Maintain an environmental management system to monitor, control and review the aspects and evaluate the impacts of the company operation to the environment,
- b) Maintain environmental objectives, set targets and programs to enhance continual improvement in environment protection, conservation and pollution prevention,
- c) Periodically review our environmental performance against the established objectives and targets,
- d) Comply with environmental legislation and regulations, and other requirements that are related to company operations and social responsibility,

- e) Reduce energy consumption and resource usage by recycling and reprocessing,
- f) Train and educate employees ensuring that they have the knowledge to implement and maintain the Environmental Management System,
- g) Ensure all employees know the environmental policy and activities of the company.
- h) Ensure the Environmental Policy and Environmental Commitment is made available to the public.

4.0 Environmental Management System requirements

4.1 General

YCA has established an Environmental Management System (hereafter known as EMS) based on the requirements of the ISO14001 standard.

4.2 Environmental policy

The YCA President and the Environmental Management Representative have defined and documented the environmental policy and have ensured that this policy:

- a) is appropriate to the nature, scale and environmental impacts of our activities, products or services;
- b) is committed to the continual improvement and prevention of pollution;
- c) is committed to comply with relevant governmental environmental legislation and regulations, and with other requirements to which YCA subscribes;
- d) provides the framework for setting and reviewing environmental objectives and targets;
- e) is documented, implemented, maintained and communicated to the employees;
- f) is available to the public.

4.3 Planning

In order to fulfill YCA's environmental policy and to continually promote environmental activities, the Environmental Management Representative has formulated an environmental plan. This plan will be reviewed annually.

The plan includes:

- a) identification of the environmental aspects and evaluation of associated environmental impacts;
- b) legal and other requirements;
- c) identification of the internal performance criteria and monitoring indicator;
- d) environmental objectives and targets.

4.3.1 Environmental Aspects

YCA has identified the environmental aspects of its activities, products or services. The significant environmental impacts associated with the environmental aspect are evaluated and considered for setting the environmental objectives for the company.

The scope of environmental aspects include:

- a) Direct environmental impacts (electric power, water, paper, chemical substances, drainage, exhaust gases, wastes, noise, etc)
- b) Indirect environmental impacts (products, transportation, procurement, subcontract services, etc)

The significant environmental impacts are reviewed annually during Environmental Management Review.

4.3.2 Legal and other requirements

YCA has identified and maintains access to legal and other requirements that are relevant to the company's activities, products and services.

These legal and other requirements include law related to the environment, notification guidelines, mandatory requirements from public authorities, agreements with the community and business world, and voluntary control plans. YCA has:

- a) specified environmental legislation and other requirements concerning our activities, products and services;
- b) ensure that the information on their establishment and revision is available and used in the EMS activities after investigation;
- c) ensure that the environmental loading facilities are conforming to legal and other requirements.

The legal and other requirements that are relevant to YCA's environmental impacts are:

- a) Air Pollution
- b) Water Pollution
- c) Soil Contamination
- d) Hazardous Substances
- e) Noise Pollution

4.3.3 Objectives and targets

YCA has established environmental objectives and targets meeting the company's Environmental Policy, including the commitment of pollution prevention.

These objectives and targets are quantified where possible, and are in accordance with the following terms:

- a) Significant environmental impacts (results of environmental aspect evaluation)
- b) Legislation, regulation and social requirements
- c) Technological trends

- d) Necessary financial affairs
- e) Operational and business requirements
- f) Organization form

4.3.4 **Environmental management program(s)**

YCA established an environmental management program for achieving the set environmental objectives and targets. The environmental management program is reviewed for any new or modified activities, products or services.

The environmental management program includes:

- a) Designation of responsibility for achieving set environmental objectives and targets at each relevant function and level of the organization;
- b) The means and time frame by which they are to be achieved.

4.4 **Implementation and Operation**

4.4.1 **Structure and responsibility**

4.4.1.1.1 **EMS Organization Structure**

YCA has established the environmental management organization whose structure and content is appropriate. The roles, responsibilities, authority and communication channel of the environmental management organization is clearly defined facilitating an effective environmental management system.

4.4.1.1.2 **Roles and Responsibilities**

President:

- a) endorses a clearly defined Environmental Policy and provides the resources to ensure that the policy is implemented and maintained at all levels.
- b) appoints the Environmental Management Representative (EMR) in the environmental management organization with clearly defined responsibilities.
- c) approval of the Environmental Management Manual.
- d) review of the Environmental Management System and set directions for environmental programs.
- e) overall responsibility for the effective implementation of the ISO14001 program.
- f) approval of the environmental objectives and targets.
- g) ensuring resources necessary for the implementation of the environmental management activities.

Environmental Management Representative (EMR):

- a) construction of the Environmental Management System and control of its maintenance based on the requirements of the ISO 14001 standard;
- b) chair the EMS steering committee;
- c) maintain, promote, check, correct and improve the environmental management system;
- d) preparation of the Environmental Management Manual;
- e) monitoring the operation of the task force group activities;
- f) report the status and results of the environmental management activities to management;
- g) function for negotiation with external parties;
- h) conduct Environmental Management Review.

EMS Steering committee:

- a) consists of the President, Environmental Management Representative (EMR), and other interested parties;
- b) establishment of the Environmental Management System and ISO 14001 certification;
- c) discussion and decision on environmental management activities.
- d) Establish the environmental objectives, targets and programs for the assigned environmental tasks

Internal EMS Auditor Group

- a) Implementation of internal environmental management system audit;
- b) (refer to section 4.5.4)

4.4.2 Training, awareness and competence

YCA maintains a process for identifying training needs and provide training on awareness and competence to all personnel whose work may create a significant impact.

Employees at relevant functions and levels are aware of:

- a) The importance of conformance with the environmental policy and procedures, and with the requirements of the environmental management system;
- b) The significant environmental impacts, actual or potential, of their activities and the environmental benefits of improved personal performance;
- c) Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the environmental management system, including emergency preparedness and response requirements;

- d) The potential consequences of departure from specific operating procedures.

Personnel performing a task that can cause significant environmental impacts are competent on the basis of appropriate education, training and/or experience.

The appropriate records of competency are maintained.

4.4.3 **Communication**

YCA maintains an effective communication channel within the organization and with external interested parties regarding our environmental aspects and implementation of the EMS. This communication covers the following requirements:

- a) Internal communication between the various levels and functions in Yokogawa;
- b) Receiving, documenting and responding to relevant communication from external interested parties.
- c) Process for external communication on significant environmental aspects.

4.4.4 **Environmental management system documentation**

YCA maintains documented procedures for effectively operating and managing the EMS documentation. Documents and data can be in the form of any type of media such as hard copy or electronic form.

The framework of EMS documentation is as follows:

- a) The Environmental Management Manual documents the YCA environmental standard consistent with the requirements of ISO 14001,
- b) Work standards describe the procedure or control standard of performing an activity,
- c) Records refer to the recording of data and/or test results, such as: check sheets, charts, forms, etc.

4.4.5 **Document control**

YCA maintains documented procedures to control all documents and data related to the requirements of ISO 14001 and ensures that:

- a) They can be easily located;
- b) They are periodically reviewed, revised as necessary, and approved for adequacy by authorized personnel;
- c) Current versions of relevant documents are available at all locations where operations essential to the effective functioning of the environmental management system are performed;
- d) Invalid and/or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use;
- e) Any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

4.4.6 Operation Control

YCA has identified the operational activities that are associated with significant environmental aspects in line with our policy, objectives and targets. These activities are carried out under the following controlled conditions:

- a) Identify processes that could contribute to significant environmental aspects, or deviations from the environmental policy, objectives and targets;
- b) Stipulating operating criteria in documented procedures related to the identified processes;
- c) Maintaining awareness of significant environmental aspects of goods and services used by YCA and communicating requirements to suppliers and contractors.

4.4.7 Emergency Preparedness and Response

YCA established a process to identify potential risks and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.

The types of emergencies are:

- a) Fire containment,
- b) Chemical spillage,
- c) First-aid
- d) Power failure

YCA reviews and revises the emergency preparedness and response program when necessary. Investigation of an accident or emergency situation will be carried out and followed with a review.

YCA periodically conduct drills or practices to test the effectiveness of the process and to ensure necessary staff is familiar with the process.

4.5 Checking and Corrective Action

4.5.1 Monitoring and Measurement

YCA maintains documented procedures to monitor and measure the key characteristic of the significant environment impact of processes and activities. Results of these measurements are recorded and reviewed by the relevant manager.

Equipment used for monitoring and/or testing is periodically calibrated and properly maintained.

4.5.2 Evaluation of Legal Compliance

YCA maintains documented procedures to monitor and measure the key characteristics of the significant environmental impacts of processes and activities. This will include periodically evaluating compliance with relevant environmental legislation and regulations, and other requirements to which we subscribe.

4.5.3 **Nonconformance and Corrective/Preventive Action**

YCA maintains documented procedures for corrective/preventive action to ensure timely and effective implementation. The Environmental Management Representative is responsible to issue and follow-up with the corrective/preventive action requests.

Any corrective or preventive action taken to eliminate the causes of actual or potential non-conformity is appropriate to the magnitude of problems and commensurable with the environmental impacts encountered.

4.5.4 **Records**

YCA maintains documented procedures for identification, maintenance and disposition of environmental records, including competency records and results of audits and reviews.

Environmental records retained are legible, identifiable and traceable to the activity, products or services involved. These records are stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Retention time of the environmental records is established and recorded.

Records are in the form of any type of media, such as hard copy or electronic mail. Electronic records are archived regularly.

4.5.5 **Environmental Management System Audit**

YCA conducts internal environmental audits to verify the following:

- a) Determine whether the environmental management system conforms to the planned arrangement and has been properly implemented and maintained;
- b) Provide information on the results of audits to management. Qualified personnel under the direction of the Environmental Management Representative carry out internal audits.

Internal audits are scheduled on the basis of the status and importance of the activity concerned and the results of previous audits. The EMR determines the importance of the activities.

The results of the audits are recorded and brought to the attention of management with responsibility in the areas audited. Management takes timely corrective action on deficiencies found during the audit. Follow-up verifies and records the implementation and effectiveness of the corrective action taken. Follow-up audits are performed as deemed necessary.

4.6 Management Review

YCA management reviews the EMS annually to ensure its continuing suitability, adequacy and effectiveness in satisfying the requirements of ISO 14001 and YCA's environmental policy and objectives.

This Environmental Management Review addresses the possible need for changes to policy, objectives and other elements of the Environmental Management System, changing circumstances and the commitment to continual improvement.

Records of this Review are maintained.